19/09/2007,10519807IIa.trn

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTASXY1626

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'REGISTRY' AT 07:06:13 ON 19 SEP 2007
FILE 'REGISTRY' ENTERED AT 07:06:13 ON 19 SEP 2007
COPYRIGHT (C) 2007 American Chemical Society (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.55	172.76

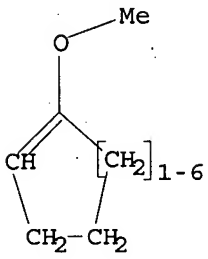
=>
Uploading C:\Program Files\Stnexp\Queries\10519807reactIIa.str

chain nodes :
6 7
ring nodes :
1 2 3 4 5
chain bonds :
2-6 6-7
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
2-6
exact bonds :
1-2 1-5 2-3 3-4 4-5 6-7
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS

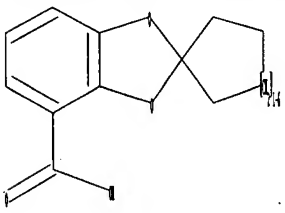
L6 STRUCTURE UPLOADED

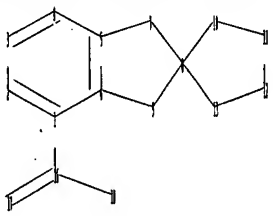
=> d l6
L6 HAS NO ANSWERS
L6 STR



Structure attributes must be viewed using STN Express query preparation.

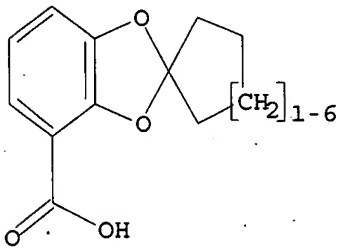
```
=> s l6
SAMPLE SEARCH INITIATED 07:06:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    34245 TO ITERATE

  5.8% PROCESSED     2000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       673838 TO   695962
PROJECTED ANSWERS:               0 TO        0

L7             0 SEA SSS SAM L6

=> s l6 full
FULL SEARCH INITIATED 07:06:41 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   686421 TO ITERATE

100.0% PROCESSED   686421 ITERATIONS                              21 ANSWERS
SEARCH TIME: 00.00.02

L8            21 SEA SSS FUL L6

=>
Uploading C:\Program Files\Stnexp\Queries\10519807react.str
```





```
chain nodes :
16  17  18
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13
chain bonds :
1-16  16-17  16-18
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6  5-7  6-9  7-8  8-9  8-10  8-13  10-11  11-12  12-13
exact/norm bonds :
```

```
5-7  6-9  7-8  8-9  8-10  8-13  10-11  11-12  12-13
exact bonds :
1-16
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6  16-17  16-18


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:Atom  16:CLASS  17:CLASS  18:CLASS



L9       STRUCTURE UPLOADED

=> d l9
L9 HAS NO ANSWERS
L9                 STR
```




```
Structure attributes must be viewed using STN Express query preparation.


=> s l9
SAMPLE SEARCH INITIATED 07:07:16 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -         7 TO ITERATE

100.0% PROCESSED         7 ITERATIONS                                  0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            7 TO       298
PROJECTED ANSWERS:               0 TO         0

L10           0 SEA SSS SAM L9

=> s l9 full
FULL SEARCH INITIATED 07:07:20 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -        74 TO ITERATE

100.0% PROCESSED        74 ITERATIONS                                  4 ANSWERS
SEARCH TIME: 00.00.01

L11           4 SEA SSS FUL L9

=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
```

```
FULL ESTIMATED COST                                  516.75      516.96

FILE 'HCAPLUS' ENTERED AT 07:07:32 ON 19 SEP 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 19 Sep 2007  VOL 147 ISS 13
FILE LAST UPDATED: 18 Sep 2007  (20070918/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s l3/P and l8/ract and l11/ract
             3 L3/P
           345 L8
       3024927 RACT/RL
           255 L8/RACT
                 (L8 (L) RACT/RL)
             6 L11
       3024927 RACT/RL
             6 L11/RACT
                 (L11 (L) RACT/RL)
L12          1 L3/P AND L8/RACT AND L11/RACT

=> d ed abs ibib hitstr tot
```
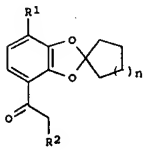
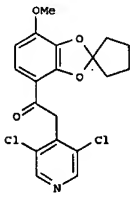

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 18 Jan 2004
GI



I



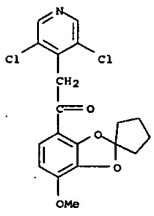
II

AB This invention pertains to a method for producing 1,3-benzodioxole derivs.
with general formula of I [wherein R1 = OH or (un)substituted alkoxy; R2 =
(un)substituted (hetero)aryl; n = 1-6]. For example, 2,3,4-trimethoxybenzoic acid was treated with 55% aqueous HI in AcOH to give 2,3-dihydroxy-4-methoxybenzoic acid (73%). The above compound was reacted
with 1-methoxycyclopentene in cyclopentanone, followed by the addition of BuI
in DMF in the presence of K2CO3 to provide 7-methoxy-1,3-benzodioxole-2-spirocyclopentane-4-carboxylic acid Bu ester. The ester obtained was reacted with 3,5-dichloro-4-picoline in THF in the presence of LiN(TMS)2 to afford II in 54% total yield. This invention provides a simple method to make 1,3-benzodioxole derivs. in high yields and large scale. I are useful compds. or intermediates as PDE IV inhibitors (no data).

ACCESSION NUMBER: 2004:41458 HCAPLUS
DOCUMENT NUMBER: 140:111406
TITLE: Process for preparation of 1,3-benzodioxole derivatives
INVENTOR(S): Atsumi, Toshiyuki; Yanagisawa, Arata; Chujo, Iwao; Tsumuki, Hiroshi; Mohri, Shinichiro
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

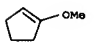
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005276	A1	20040115	WO 2003-JP8478	20030703
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2491464	A1	20040115	CA 2003-2491464	20030703
AU 2003252467	A1	20040123	AU 2003-252467	20030703
EP 1535920	A1	20050601	EP 2003-762875	20030703
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005245750	A1	20051103	US 2004-519807	20041229
PRIORITY APPLN. INFO.:			JP 2002-194273	A 20020703
			WO 2003-JP8478	W 20030703

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
(prepn. of benzodioxole derivs.)
RN 185406-34-2 HCAPLUS
CN Ethanone, 2-(3,5-dichloro-4-pyridinyl)-1-(7-methoxyspiro[1,3-benzodioxole-2,1'-cyclopentan]-4-yl)- (9CI) (CA INDEX NAME)

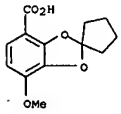


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
OTHER SOURCE(S): CASREACT 140:111406; MARPAT 140:111406
IT 1072-59-9, 1-Methoxycyclopentene
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzodioxole derivs.)
RN 1072-59-9 HCAPLUS
CN Cyclopentene, 1-methoxy- (9CI) (CA INDEX NAME)



IT 185407-83-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzodioxole derivs.)
RN 185407-83-4 HCAPLUS
CN Spiro[1,3-benzodioxole-2,1'-cyclopentane]-4-carboxylic acid, 7-methoxy- (9CI) (CA INDEX NAME)



IT 185406-34-2P
RL: SPN (Synthetic preparation); PREP (Preparation)